

In the Claims:

Claims 5 and 6 are cancelled and claims 7 and 8 are amended
and now read as follows:

7. (Amended) An arrangement for generating a mechanical
vibration comprising:

a mass;

a plurality of vector force cells and first and second ones
5 of said force cells being for generating first and second
rotating force vectors to form a resultant force vector acting on
said mass to impart mechanical vibration thereto;

said first force cell including a first rotating eccentric
to generate said first rotating force vector; an electrically
10 controlled first drive for rotating said first rotating
eccentric; and, a first angle sensor for detecting the angular
position of said first rotating eccentric relative to a reference
direction and outputting a first signal indicative thereof;

said second force cell including a second rotating eccentric
15 to generate said second rotating force vector; an electrically
controlled second drive for rotating said second rotating
eccentric; and, a second angle sensor for detecting the angular
position of said second rotating eccentric relative to a
reference direction and outputting a second signal indicative
20 thereof;

said electrically controlled first drive being separate from
said electrically controlled second drive;

said first force cell including a first control and

monitoring device connected to said first angle sensor for
25 receiving said first signal;

said second force cell includes a second control and
monitoring device connected to said second angle sensor for
receiving said second signal;

a primary control unit connected to said first and second
30 control and monitoring devices;

said primary control unit functioning to generate first and
second control signals for setting a rotational frequency,
direction of rotation and phase position for said first and
second force cells, respectively;

35 said first control and monitoring device receiving said
first control signal and functioning to calculate the direction
of rotation, speed of rotation and phase position of said first
rotating eccentric based on said first signal and to then
generate a first drive signal for said first drive to regulate
40 the direction of rotation, speed of rotation and phase position
thereof;

said second control and monitoring device receiving said
second control signal and functioning to calculate the direction
of rotation, speed of rotation and phase position of said second
45 rotating eccentric based on said second signal and to generate a
second drive signal for said second drive to regulate the
direction of rotation, speed of rotation and phase position
thereof; and,

said primary control unit having an input for receiving a
50 control signal indicative of parameters for a specific force
vector diagram and functioning to determine the direction of

rotation, speed of rotation and phase position of each of said first and second rotating eccentrics based on said parameters.

8. (Amended) An arrangement for generating a mechanical vibration comprising:

a mass;

a plurality of vector force cells and first and second ones
5 of said force cells being for generating first and second rotating force vectors to form a resultant force vector acting on said mass to impart mechanical vibration thereto;

said first force cell including a first rotating eccentric to generate said first rotating force vector; an electrically
10 controlled first drive for rotating said first rotating eccentric; and, a first angle sensor for detecting the angular position of said first rotating eccentric relative to a reference direction and outputting a first signal indicative thereof;

said second force cell including a second rotating eccentric
15 to generate said second rotating force vector; an electrically controlled second drive for rotating said second rotating eccentric; and, a second angle sensor for detecting the angular position of said second rotating eccentric relative to a reference direction and outputting a second signal indicative
20 thereof;

said electrically controlled first drive being separate from said electrically controlled second drive; and,

said first and second rotating eccentrics being rotatably journalled to conjointly define a common geometric axis of
25 rotation and said first and second rotating eccentrics have a

mass center whose axis of rotation corresponds to said axis of rotation and rotates in approximately the same geometric plane.

Please add claim 9 as follows:

9. An arrangement for generating a mechanical vibration comprising:

a mass;

a plurality of vector force cells and first and second ones
5 of said force cells being for generating first and second rotating force vectors to form a resultant force vector acting on said mass to impart mechanical vibration thereto;

said first force cell including a first rotating eccentric to generate said first rotating force vector; an electrically
10 controlled first drive for rotating said first rotating eccentric; and, a first angle sensor for detecting the angular position of said first rotating eccentric relative to a reference direction and outputting a first signal indicative thereof;

said second force cell including a second rotating eccentric
15 to generate said second rotating force vector; an electrically controlled second drive for rotating said second rotating eccentric; and, a second angle sensor for detecting the angular position of said second rotating eccentric relative to a reference direction and outputting a second signal indicative
20 thereof;

said electrically controlled first drive being controlled separately from said electrically controlled second drive;

a common control system operatively connected to said first

and second force cells; and,

25 said first and second rotating eccentrics being rotatably
journalled to conjointly define a common geometric axis of
rotation and said first and second rotating eccentrics have a
mass center whose axis of rotation corresponds to said common
geometric axis of rotation.